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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/500,055	01/03/2005	Hideo Onuki	AOKI.P-103	9155

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EXAMINER

MCNALLY, DANIEL

ART UNIT	PAPER NUMBER
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1733

MAIL DATE	DELIVERY MODE
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08/01/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/500,055

Applicant(s)

ONUKE, HIDEO

Examiner

Daniel McNally

Art Unit

1733

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 June 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) 2 and 3 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 4-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 9/7/2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Claims 2 and 3 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 6/29/2007.
2. Applicant's election without traverse of Group I, Claims 1 and 4-7 in the reply filed on 6/29/2007 is acknowledged.

Claim Objections

3. Claim 4 is objected to because of the following informalities: Claim 4 recites the transparent medium is irradiated with ultraviolet light with a wavelength as low as about 160 nm. The applicant has support for using a UV wavelength as low as 160nm because the independent claim broadly recites a wavelength shorter than 200nm. In the applicant's specification, page 10, line 30 to page 11, line 10, 160nm is discussed as the minimum wavelength transmitted by the adhered quartz glass. The applicant never discloses irradiating UV light a wavelength of 160nm to adhere the two materials, rather the applicant provides examples of using UV sources producing UV radiation at wavelengths of 254nm, 185nm and 172 nm (page 6, lines 25-32; page 10, lines 17-29). This objection was made to point out the significance of the 160nm wavelength as the minimum transmittable wavelength as discussed by the applicant, rather than 160nm being the desirable wavelength for the UV radiation used to adhere the materials.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1 and 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Konuki [JP10282339] (of record, previously cited) in view of either one of Konuki [JP10282499] or Noda et al. [US8642897].

Konuki '339 discloses a method of bonding parallel plates. Note a machine translation of Konuki '339 is used and cited. The machine translation is of record and cited in the previous election/restriction requirement. Konuki '339 discloses a method comprising providing a plurality of quartz glass plates, which are transparent to ultraviolet light, applying alkoxide to the surfaces between the plates, irradiating ultraviolet light from an excimer lamp to solidify the alkoxide and bond the plates together (paragraphs 0022-0023). The excimer lamp produces ultraviolet light at wavelengths less than 200nm, and the ultraviolet light is also irradiated in a nitrogen gas atmosphere (paragraph 0022). While Konuki '339 discloses an embodiment where mechanical pressure is applied to the plates (paragraph 0015), Konuki '339 is silent as to applying pressure and alkoxide with ultraviolet light to bond the plates together.

Konuki '499 discloses a method of bonding parallel plates. Note a machine translation of Konuki '499 is used and cited. The method comprises providing parallel quartz plates, applying an alkoxide between the plates, piling the plates, applying

pressure to the plates to narrow the gap between each of the plates and curing the alkoxide using ultraviolet light (paragraphs 0018, 0055 and 0068).

Noda discloses a method for bonding articles. The method comprises providing a first and second substrate, providing a bonding layer between the substrates, pressing the substrates together and drying the bonding agent to bond the substrates together (column 1, lines 43-62; column 3, lines 15-23). The bonding layer comprises an alkoxide (column 3, lines 44-57). At least one of the substrates can be made of quartz (column 4, lines 6-14).

It would have been obvious for one of ordinary skill in the art at the time of invention to modify the method of Konuki '339 by pressing the plates together as taught by either one of Konuki '499 or Noda in order to narrow the gap of between the plates.

With regard to claim 4, Konuki '339 discloses using an excimer lamp with a spectrum of from 155nm to 200nm (paragraph 0022).

With regard to claim 5, Konuki '339 discloses using quartz glass plates (paragraph 0022).

With regard to claim 6, Konuki '339 discloses using TMOS (paragraph 0022).

6. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Konuki '339 (of record, previously cited) in view of Noda et al. [US8642897].

Konuki '339 as modified by Noda, discloses a method of bonding transparent plates. The applicant is referred to paragraph 5 above for a detailed discussion of Konuki '339 as modified. With regard to claim 7, Noda discloses using a bonding agent comprising metal alkoxide (column 3, line 44 – column 4, line 5).

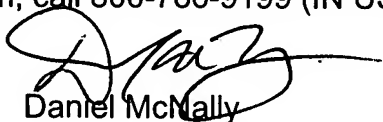
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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel McNally whose telephone number is (571) 272-2685. The examiner can normally be reached on Monday - Friday 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Daniel McNally
Examiner
Art Unit 1733


JEFF H. AFTENGUT
PRIMARY EXAMINER
GROUP 1300

/DPM/
July 24, 2007